



WYOMING GAME AND FISH DEPARTMENT

GRIZZLY BEAR MANAGEMENT DISCUSSIONS – MAJOR THEMES

February 2018

Below is an overview of the five major components of the Wyoming Game and Fish Commission's Grizzly Bear Management Plan, research, education, population monitoring, conflict management and hunting. For each component Game and Fish has identified the most common themes that emerged at the meetings in italics and below is information on how Game and Fish is planning to address that input.

1. POPULATION MONITORING

- *Use of information provided by the public and citizen science to aid in monitoring*
 - Game and Fish strives to follow up on reports from the public of grizzly bear sightings, especially family groups to assist with recovery criteria and population monitoring. We are also evaluating existing online and mobile tools for the public to upload grizzly bear sightings. We will look toward information to be garnered from outdoor users at trailheads and campsites (dispersed and nondispersed).
- *Alternative monitoring methods, continue evaluation of population estimate methods*
 - We have and will continue to evaluate additional methods to monitor grizzly bears. Game and Fish has been part of multi-state analysis of the mark-resight method in the past and are in the process of updating current methods in order to provide more accurate representation of the population. We will continue to use genetic and potentially integrated population modeling methodology that incorporates the wealth of data we have and continue to collect.
- *More accurate population estimate*

- The current method to estimate abundance (Chao2) is conservatively biased as the population increases in size. We are committed to acquiring an estimate of the population that is representative and accurate for what is occurring on the landscape. We have looked at other methods in the past and will evaluate the current methodology to increase its accuracy. Science is always providing ways to improve the accuracy of estimation of population abundance and trends. The evaluation of monitoring techniques is something we will continue as we do for all species in Wyoming.
- *Increase monitoring to outside the DMA (“Count All Bears”)*
 - We are committed to maintaining a recovered population in the Demographic Monitoring Area (DMA). The DMA was created in order to have an area of land large enough to maintain a viable grizzly bear population in perpetuity within suitable habitats and to have a consistent area of monitoring. We have bears well beyond the DMA, and monitor their activities in relation to conflict, but bears that occur there do not count toward the recovery criteria. Bears that occur in less suitable human dominated habitats are more prone to conflict.

2. RESEARCH

- *Analysis of conflict management and relocation*
 - The Wyoming Game and Fish Department, other states and academic researchers continue to evaluate management of conflicts. Game and Fish appreciates this idea and plans to formally analyze and publish information in regards to relocation and other management techniques as conflict resolution tools and potentially a Master’s student involved with the Large Carnivore Section to objectively evaluate some of our management techniques.
- *Foods and body condition*
 - During existing research Game and Fish annually quantifies the body condition of grizzly bears and examines the use of foods both through analysis of captured bears’ body fat and through stable isotope analyses that provide insight into food use. Due to concerns related to grizzly bear foods, as part of the Interagency Grizzly Bear Study Team we published multiple peer-reviewed papers in the last 5 years looking specifically at foods and body condition in relation to Greater Yellowstone Ecosystem grizzly bears. We will make this information more available to the public through our website. The good news is that so far the peer-reviewed research shows that changes in food abundances are not negatively impacting this population.
- *Interactions among other carnivores and ungulates (Predation)*
 - This is a research topic Game and Fish is very excited to pursue and we are evaluating research projects and developing proposals we can accomplish over the coming years and look forward to presenting those findings.

- *More accurate population estimate*
 - See above. We realize the importance of achieving a more accurate estimate. The estimate is the basis for establishing mortality thresholds and we recognize the population estimate is conservatively biased.

3. CONFLICT MANAGEMENT

- *Explore additional methods (including nonlethal, aversive conditioning)*
 - Game and Fish will evaluate all methods to reduce conflicts. Some methods we use now include the use of electric fencing around potential food sources, aversive conditioning, and public education.
- *Food storage, regulations, and enforcement*
 - This is an area where partnerships are key. Land management agencies are in charge of these regulations, but we will give this input to the Forest Service, BLM and others.
- *Public education on program and transparency*
 - This is an area where Game and Fish will seek feedback to try and meet expectations. A few steps are underway. This includes an update to the Game and Fish website and a series of Living in Large Carnivore Workshops around the state. Game and Fish also has made the Bear Wise Wyoming Coordinator a permanent full-time position. Game and Fish is including one example of its annual report on [Captures, Relocations and Removals](#). The Department website has links to all annual reports, weekly updates, monthly updates, peer reviewed literature, interactive distribution figures and a site committed to safety and education (Bear Wise Wyoming)
- *Definitions of conflict, (Conflict vs Problem Bears)*
 - Game and Fish will work to make sure the information is more available to the public – part of this will be finding ways to reach people we have not in the past.

4. BEAR WISE – OUTREACH AND EDUCATION

- *More education and transparency*
 - One effort is to update the Bear Wise webpage and the information on bear identification to be more interactive. Game and Fish also plans to provide more information via multiple formats. A sign of this commitment is making the Bear Wise Wyoming Coordinator a permanent, full-time position.
- *Information more readily available to the public*
 - One means to learn more about this will be get feedback on the Bear Wise webpage about how Wyoming people wants to get information. Game and Fish will continue their statewide Living in Large Carnivore workshops in 2018 to get this information to the public. Additionally, a series of videos on YouTube and

Facebook have reached hundreds of thousands of people. This new effort is a way we are trying to get information out more widely.

- *Bear spray info and education*
 - The Living in Large Carnivore country workshops will include this as will the Wyoming Outdoor Weekend in Lander, and the Wyoming Outdoor Expo in Casper. Other plans for bear spray education include local events, Boy and Girl Scouts, US Forest Service, BLM partnerships, Kids Fishing Days, local schools, 4th Grade Education Day, bear spray giveaways in Cody, Jackson and next year Dubois as well. Annually, Game and Fish speaks to hundreds of different groups face to face, reaching thousands of residents and visitors to Wyoming.
- *Increased collaboration – including more donors to support these efforts*
 - We can build on our existing collaborations with other agencies, non-governmental organizations and businesses to spread information about bear safety and management.

5. HUNTING

- *Hunting to target conflict bears and expansion*
 - General support.
 - A draft regulation is being developed with public ideas being represented, in addition once draft regulations are made public a full comment period will be open for additional input.
- *License costs, license types*
 - This is set in state law. Game and Fish can and does pass along statute – potential legislation to provide commission authority to set license types .
- *Mandatory education/training/proficiency*
- *Limit any draw and include reporting of harvests*